

WHAT IS CLAIMED IS:

1. A scan type display optical system comprising:

an optical scanning member which deflects and scans light; and

a projection optical system which has a plurality of optical surfaces including a reflective surface and projects the light from the optical scanning member, wherein

an incidence range of the light from the optical scanning member to a first optical surface on which the light is incident initially out of the plurality of optical surfaces is variable.

2. The scan type display optical system according to claim 1, wherein

the position on a projection surface of an image formed by projection light from the projection optical system is changed by varying the incidence range of the light to the first optical surface.

3. The scan type display optical system according to claim 1, wherein

the inclination on a projection surface of an image formed by projection light from the projection optical system is changed by varying the incidence range of the

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light to the first optical surface.

4. The scan type display optical system according to claim 1, wherein

the incidence range of the light to the first optical surface is changed by rotating an optical member constituting the scan type display optical system around an entrance pupil of the projection optical system.

5. The scan type display optical system according to claim 4, wherein

the optical member is the optical scanning member.

6. The scan type display optical system according to claim 4, wherein

the optical member is a member constituting the projection optical system.

7. The scan type display optical system according to claim 4, further comprising a light source optical system which guides light from a light source to the optical scanning member, wherein

the optical member is a member constituting the light source optical system.

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8. The scan type display optical system according to claim 1, wherein

the projection optical system includes a reflective surface having curvature.

9. The scan type display optical system according to claim 8, wherein

the reflective surface has a rotational asymmetric aspheric shape.

10. The scan type display optical system according to claim 1, wherein

the optical scanning member comprises a first mirror which deflects and scans light in a first direction, and a second mirror which deflects and scans the light in a second direction orthogonal to the first direction.

11. A scan type image display apparatus comprising:

the scan type display optical system according to claim 1;

a light source which emits light modulated in accordance with an image signal.

12. A scan type image display apparatus comprising:

the scan type display optical system according to claim

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a light source which emits light modulated in accordance with an image signal; and

a controller which sequentially switches the rotational position of the optical member to form an image at a plurality of positions on the projection surface.

13. A scan type image display apparatus comprising:

the scan type display optical system according to claim 5;

a light source which emits light modulated in accordance with an image; and

a controller which sequentially switches a light-scanned range by the optical scanning member to form an image at a plurality of positions on the projection surface.